

WHAT IS CLAIMED IS:

1. A spectrophotometer having
a light source for emitting an optical beam,
a photodetector that changes in sensitivity with
5 changes in applied voltage,
an analog-to-digital converter by which electrical
signals from said photodetector are converted into
digital signals,

10 a digital storage means for storage of said digital
signals corresponding to the light of said beam, and
a sensitivity control means for controlling the
sensitivity of said photodetector so that the signal
values of said digital signals stay within a
predetermined range,

15 wherein the spectrophotometer is characterized in
that said sensitivity control means is further equipped
with a sensitivity correction data storage means by which
sensitivity correction data for adjusting the sensitivity
of said photodetector is stored for each wavelength, and
20 a sensitivity correction means for adjusting the
sensitivity of said photodetector by applying the
sensitivity correction data stored into said sensitivity
correction data storage means.

2. A spectrophotometer having
25 a light source for emitting an optical beam,
a beam splitting means by which the beam that has
been emitted from said light source is split into two
beams,

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a photodetector that changes in sensitivity with changes in applied voltage,

an analog-to-digital converter by which electrical signals from said photodetector are converted into digital signals,

a digital storage means for storage of said digital signals corresponding to the light of said two beams,

a sensitivity control means for controlling the sensitivity of said photodetector so that the signal values of said digital signals stay within a predetermined range, and

a calculation means for calculating the ratio of the digital signals corresponding to the two beams stored into said digital storage means,

wherein the spectrophotometer is characterized in that said sensitivity control means is further equipped with a sensitivity correction data storage means by which sensitivity correction data for adjusting the sensitivity of said photodetector is stored for each wavelength, and a sensitivity correction means for adjusting the sensitivity of said photodetector by applying the sensitivity correction data stored into said sensitivity correction data storage means.

3. A spectrophotometer as set forth in Claim 1 or 2 above, wherein the spectrophotometer is characterized in that said sensitivity control means stores into said sensitivity correction data storage means the sensitivity correction data corresponding to measuring wavelength

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bands, and during the measurement of a sample, adjusts the sensitivity of said photodetector by applying the sensitivity correction data stored within said sensitivity correction data storage means.

5 4. A spectrophotometer as set forth in Claim 2 or 3 above, wherein the spectrophotometer is characterized in that it provides said photodetector with sensitivity correction control in order for the beam signal of the photodetector to stay within a predetermined range during
10 the measurement of a sample that changes wavelength at high speed.

 5. A spectrophotometer as set forth in Claim 2 or 3 above, wherein the spectrophotometer is characterized in that it provides said photodetector with sensitivity
15 correction control in order for one of the two beam signals of the photodetector to stay within a predetermined range during the measurement of a sample that changes wavelength at high speed.

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